

A METHOD AND SYSTEM FOR A CACHE REPLACEMENT TECHNIQUE WITH ADAPTIVE SKIPPING

ABSTRACT

A method, system, and program storage medium for adaptively managing pages in a cache memory included within a system having a variable workload comprising arranging a cache memory included within a system into a circular buffer; maintaining a pointer that rotates around the circular buffer; maintaining a bit for each page in the circular buffer, wherein a bit value 0 indicates that the page was not accessed by the system since a last time that the pointer traversed over the page, and a hit value 1 indicates that the page has been accessed since the last time the pointer traversed over the page; and dynamically controlling a distribution of a number of pages in the cache memory that are marked with bit 0 in response to a variable workload in order to increase a hit ratio of the cache memory.